

19980711.qrp v01_n149.qrs.980711

Date: Sat, 11 Jul 1998 19:03:10 EDT
From: qrp-l@Lehigh.EDU
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: QRP-L digest 1149

QRP-L Digest 1149

Topics covered in this issue include:

- 1) [14859] CB to 10m, the 11-2-10 project
by Steven Weber <kd1jv@moose.ncia.net>
- 2) [14860] Re: Packing material
by Ed Loranger <we6w@qsl.net>
- 3) [14861] Re: Packing material
by Steven Weber <kd1jv@moose.ncia.net>
- 4) [14862] Re: Packing material
by "jim tibbits" <AB7VF@worldnet.att.net>
- 5) [14863] Pop Corn
by ac5ez@webtv.net (Larry B)
- 6) [14864] Re: Packing material
by "George T. Baker" <w5yr@swbell.net>
- 7) [14865] Re: QRP help
by "George T. Baker" <w5yr@swbell.net>
- 8) [14866] Re: [HomeBrew] Antenna Q's
by msix@rt66.com
- 9) [14867] Re: Packing material
by Mike Martin <mmartin@netins.net>
- 10) [14868] Re: Elmer 101 debugging sessions
by "John J. McDonough" <jjmcd@tm.net>
- 11) [14869] Elmer300: Heads Up Announcement
by adams@chuck.dallas.sgi.com (Chuck Adams)
- 12) [14870] in the line of fire
by bob evinger <revinger@marshallonline.com>
- 13) [14871] Popcorn Packing Material
by "T.J. \"SKIP\" Arey N2EI" <tjarey@home.com>
- 14) [14872] Re: in the line of fire
by "Robert P. Okas" <vintage@best.com>
- 15) [14873] Bumblebee # 28 operating location
by W9SUL <pugrad@millcomm.com>
- 16) [14874] Re: Wilderness Radio's SST Xcvr???
by "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
- 17) [14875] Re: FREQ-Mite crystal frequency
by Bensondj@aol.com
- 18) [14876] Re: Fish Story or Know
by w4bws@juno.com (Donald E Sanders)
- 19) [14877] Re: Packing material

- by Wa2eaw@aol.com
- 20) [14878] items for sale
by "edwin a. crowell" <w5twr@rconnect.com>
 - 21) [14879] Re: Packing material
by Steve <smann@advi.net>
 - 22) [14880] Re: Packing material
by Michael Neverdosky <MichaelN@cycat.com>
 - 23) [14881] What contest is on now?
by Jeff Grudin <grudin@pacific.vdbs.com>
 - 24) [14882] RE Fish story or KNEAUX (cajun spelling)
by jdenison@morelr.com (JOEL DENISON)
 - 25) [14883] Re: Packing material
by jim <kw3u@warwick.net>
 - 26) [14884] Re: What contest is on now?
by Ab7wy@aol.com
 - 27) [14885] Bumblebee # 84 Operating Location
by "Ron Polityka" <wb3aal@talon.net>
 - 28) [14886] 38 Special pwr Mod???help
by "GREGORY HEATH" <KB2QQM@email.msn.com>
 - 29) [14887] Packing Material
by ac5ez@webtv.net (Larry B)
 - 30) [14888] Contest Info - Thanks
by Jeff Grudin <grudin@pacific.vdbs.com>
 - 31) [14889] NC 38S Custom Enclosure Question
by "Jim Larsen (AL7FS)" <larsennc@alaska.net>
 - 32) [14890] Spartan Sprint - Kits - KnightSMiTes
by "Bob Kellogg" <ae4ic@nr.infi.net>
 - 33) [14891] Elmer 101: Part 10, first audio amp
by Michael Maiorana <mikemo@ibm.net>
 - 34) [14892] Elmer 101: Part 9, Product detector
by Michael Maiorana <mikemo@ibm.net>
 - 35) [14893] Elmer101: Part 11, VFO adjustment
by Michael Maiorana <mikemo@ibm.net>
 - 36) [14894] Re: 38 Special pwr Mod???help
by "Hugo W. Catta" <hugo@banet.net>

Date: Fri, 10 Jul 1998 18:11:59
From: Steven Weber <kd1jv@moose.ncia.net>
To: qrp-l@Lehigh.EDU
Subject: [14859] CB to 10m, the 11-2-10 project
Message-ID: <3.0.3.16.19980710181159.2f7743ee@mailhost.ncia.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Howdy perspective qrp AMer's

Conrad and an other list member, Steve Smith have spent the last week trying to hunt down a source of cheap, surplus CB rigs, with only parcial succes.

I wandered into the new local Wal-Mart last night to see what they might have, and they had a cute little Maxon rig (MCB-30) for the "everyday low price" (tm) of \$34.96. When you factor in shipping costs, that comes real close to the best price we've seen yet.

Since we really didn't want to get into brokering CB sets, and we could not beat the Wal-Mart price by any significant amount, I think this is the rig to use as the offical conversion "standard" (Unless a really good deal does turn up) The advantage here is anyone who wants to start out with a "freash" rig can simply go to thier local Wal-Mart and get one. BTW, this Maxon rig looks identical to one Radio Shack currently has on sale for \$39.95!

This is a compact style rig, 6 1/2" x 4 1/2" x 1 1/2". It uses several surface mount modules for the VCO, Rx front end, IF and Tx low pass filter. The PLL is in a 28 pin dip, .6" W. There is plenty of room up front for a conversion board. In fact, I can make the board so that it will simply plug in where the original PLL goes. Then all you will have to do is re-peak 4 transformer cans and maybe spread a few air wound coils. If you remove the speaker, and use an external one, there is plenty of room for adding other mods. All in all this rig is a study of minimualist qrp radio design.

This rig is push button tuned and uses a muliplexed two digit display, with the digit drivers mounted on the pcb. Therefore, I will be able to have slow/fast tuning rates, maybe a scan function with the squelch, and display the full frequency. An extra LED will need to be added to indicate the 5 Khz "between" steps.

Therefore, I am going to design my conversion board for this rig. It should also work with several other rigs of similer or identical design sold under other names. The conversion board will still be able to be used with older rigs, ones you might already have, find at yard sales, flea markets, parked cars or for sale by street gangs <g> but with some additional work. (be carefull if you go the parked car, street gang approch :-)

Okay, time to go to work on the conversion board...

72,

Steve, KD1JV....In the White Mountains of New Hampshire

"Melt Solder"

Date: Fri, 10 Jul 1998 23:09:55 +0000
From: Ed Loranger <we6w@qsl.net>
To: ac5ez@webtv.net
Cc: qrp-1@Lehigh.EDU
Subject: [14860] Re: Packing material
Message-ID: <35A69F43.56B@qsl.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

First the serious response.
I think it has to be 'air Popped'.

Now the jokes:
Airmail MUST be air-popped.
Ok to use oil if transporting by surface vehicles.

Chia Pets -- Ok to add Cheasy-topping :)
In the navy we added Salt.
If you are in trouble with the wife, you'd
better butter it up before sending out the gift....

Well, I'm trying to be Humorous, "He said, Off-handedly"

hee haw, and I hope I've cheered you up. I am :) :)

That's all for now, gotta start the weekend.

See ya Larry,
-Ed
--

72, =ED, WE6W/qrp CW ONLY; Proud Member: QRP-L/ARCI/Norcal/ARS/AR
<http://www.qsl.net/we6w> (Enjoying Ham Radio every day.)

Date: Fri, 10 Jul 1998 18:18:59
From: Steven Weber <kd1jv@moose.ncia.net>
To: ac5ez@webtv.net
Cc: qrp-1@Lehigh.EDU
Subject: [14861] Re: Packing material
Message-ID: <3.0.3.16.19980710181859.2acf630a@mailhost.ncia.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

>Has anyone ever used pop corn as a packing material? Does it work well?
>This is a serious question, guys, really.

I suppose it might work well, but the party on the other end may find quite
few "critters" munching away at the contents! (would that be with butter
and salt? :-)

72,
Steve, KD1JV....In the White Mountains of New Hampshire

"Melt Solder"

Date: Fri, 10 Jul 1998 16:21:11 -0700
From: "jim tibbits" <AB7VF@worldnet.att.net>
To: <ac5ez@webtv.net>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [14862] Re: Packing material
Message-ID: <19980710231742.EQWS1714@compag>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

yep, works fine; no butter, no salt (:{))

> From: Larry B <ac5ez@webtv.net>
> To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
> Subject: Packing material
> Date: Friday, July 10, 1998 3:54 PM
>
> Has anyone ever used pop corn as a packing material? Does it work well?
> This is a serious question, guys, really.
>
> Larry Ac5ez
> Qcwa
>

Date: Fri, 10 Jul 1998 18:38:46 -0500 (CDT)
From: ac5ez@webtv.net (Larry B)
To: qrp-l@Lehigh.EDU
Subject: [14863] Pop Corn
Message-ID: <21681-35A6A606-546@mailtod-122.bryant.webtv.net>
Content-Type: Text/Plain; Charset=US-ASCII

Content-Transfer-Encoding: 7Bit
MIME-Version: 1.0 (WebTV)

Ok, Im convinced. I guess the xyl isnt crazy after all. Popcorn it is .
Thanks guys.

Larry Ac5ez
Qcwa

Date: Fri, 10 Jul 1998 19:23:32 -0500
From: "George T. Baker" <w5yr@swbell.net>
To: ac5ez@webtv.net
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [14864] Re: Packing material
Message-ID: <35A6B084.3B4503C2@swbell.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

It's been used for years, Larry, but the little plastic thingies nowadays are cheaper and probably work better. Plus, people are not inclined to eat plastic while popcorn seems to attract some persons and animals. For years, popcorn packing was dyed blue and green to discourage consumption!

Use it yourself if you wish, but you are sticking your neck out a bit.

--
72/73, George
Amateur Radio W5YR, 52 years and counting!
QRP-L #1373 QRP ARCI #9583 FISTS #4930 ARS #403
AutoPOWER Systems, Fairview, TX (30 Mi. N. of Dallas)

Larry B wrote:

>
> Has anyone ever used pop corn as a packing material? Does it work well?
> This is a serious question, guys, really.
>
> Larry Ac5ez
> Qcwa

--
72/73, George

Amateur Radio W5YR, 52 years and counting!
QRP-L #1373 QRP ARCI #9583 FISTS #4930 ARS #403
AutoPOWER Systems, Fairview, TX (30 Mi. N. of Dallas)

Date: Fri, 10 Jul 1998 19:28:58 -0500
From: "George T. Baker" <w5yr@swbell.net>
To: K5RB@worldnet.att.net
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [14865] Re: QRP help
Message-ID: <35A6B1CA.7B141354@swbell.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Yeah, Rich, but just remember: it is all PURE GOLD!!

--
72/73, George
Amateur Radio W5YR, 52 years and counting!
QRP-L #1373 QRP ARCI #9583 FISTS #4930 ARS #403
AutoPOWER Systems, Fairview, TX (30 Mi. N. of Dallas)

Richard Bauer wrote:

>
> HELP, !!!!!!! Have received over 350 messages , when do u get time to read
> this es still have time to get on the air or ?. Tnx. somebody. 73 Rich.

Date: Fri, 10 Jul 1998 19:05:28 -0600 (MDT)
From: msix@rt66.com
To: Brad Mugleston <bmug@gwl.com>
Cc: "'qrp-l'" <qrp-l@Lehigh.EDU>, "'cw'" <cw@qth.net>, "'homebrew'" <homebrew@qth.net>
Subject: [14866] Re: [HomeBrew] Antenna Q's
Message-ID: <Pine.SUN.3.96.980710190454.25853A-100000@mack.rt66.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Brad - Think it's mostly magic, like crystal sets...

73 - John W7ZFB at msix@rt66.com
1400 Catron SE Albq, NM 87123

* Homebrewer since 1947 CW BoatAnchors Norcal #930 *

Date: Fri, 10 Jul 1998 20:45:29 -0500
From: Mike Martin <mmartin@netins.net>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [14867] Re: Packing material
Message-ID: <35A6C3B8.DA33DC0A@netins.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Larry B wrote:

>
> Has anyone ever used pop corn as a packing material? Does it work well?
> This is a serious question, guys, really.
>
> Larry Ac5ez
> Qcwa

Larry,

Mom used to use popcorn when she sent me "care packages" over in the 'Nam. My buddies and I thought it was great. We could eat the popcorn, too. Keep that in mind if you're sending something to a friend! Otherwise, use the styrofoam stuff.

72/73

Mike

--

Mike Martin
KA0AMA
<http://welcome.to/scaniowa>
QRP-L #1506
IAQRP #5
ARS #399
Galesburg, IA
41 33 32N 92 56 46W
If at first you don't succeed, try again. Then quit.
No use being a damn fool about it.

Date: Sat, 11 Jul 1998 03:15:12 -0400
From: "John J. McDonough" <jjmcd@tm.net>
To: <johns516@maroon.tc.umn.edu>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [14868] Re: Elmer 101 debugging sessions
Message-ID: <199807110151.7896200@is1.tm.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

> From: Craig B. Johnson <johns516@maroon.tc.umn.edu>;
owner-qrp-1@Lehigh.EDU
>
> Here is the email correspondence I had with Glen regarding some
> transmitter problems:

Even tho I'm not building the kit, that exchange was fascinating.

Thanks for sharing

72/73 de WB8RCR
dldleydadidah

Date: Sat, 11 Jul 1998 03:25:02 +0100
From: adams@chuck.dallas.sgi.com (Chuck Adams)
To: qrp-1@Lehigh.EDU
Subject: [14869] Elmer300: Heads Up Announcement
Message-ID: <199807110225.DAA05482@chuck.dallas.sgi.com>

Gang,

For all the years that people have been complaining about:

1. Kit builders are a bunch of whimps.
2. Nobody does ugly construction, the REAL way to build rigs.
3. How come rig XYZZ uses parts that I can't find or aren't being made anymore?
4. ...

Well, the project for the Elmer 300 series will be code named "The Manhattan Project", but will not be done at UofChicago. :-)
This project will give everyone a starting place to finally jump off on their own, either during or afterwards into the real world of experimenting, designing, and in general having a good time.....

The project chosen and one that the designer was kind and gracious enough to allow the group to copy and use was the winner of the NorCal 2N2222 building contest in Dayton. Rig is a 40M XCVR designed and constructed by Jim Kortge, K8IQY, from the great QRP state of Michigan. Thanks a lot Jim.

Here are some initial guidelines and information will be forthcoming in sections, so sit back and relax and enjoy. This will take a lot of time over a period of at least six months or more for the average builder. You don't want to do a project of this magnitude all at once and then start debugging. :-) You want to do this section by section.

- A. Article is appearing in Summer Issue of QRPp, so those that aren't anti-NorCal and have a paid up subscription will be getting a lot of information right off the bat. I have Paul Harden's Hint and Kinks section from that issue and yet another great work of art from Paul. The guy does good work. He has some of the concepts that Jim used for The Manhattan Rig. You gotta think in 3-D.
- B. I have in my possession the original rig as it came FED-X this morning. I am doing the digital closeups for the web page this weekend, so stay tuned Monday for that. I also have the schematics but am going to wait on getting those to the web page until QRPp comes out. Seems only fair, so don't rush this. I have to generate them with my own program. I will make some attempt to work someone on 40M late at night starting Friday around 0400UTC and maybe around 0300UTC on Saturday night.
- C. Parts list will be posted to this group by end of the weekend, so those interested can start gathering parts. Probably some club may come up with a bag of parts.
- D. Project should start just after the 1st of September and continue through the winter months when a lot of building usually goes on anyway.
- E. SPICE modeling will be done and shown, as this is the way Jim did it. This will show people some techniques they can use.
- F. Conversion to other bands will be discussed.

G. Probably lots of mods will come in from the "Peanut Gallery". :-)
Someone will probably go and do a PC board if I know this group.

H. I will sponsor a trophy to be awarded at Pacificon in October 1999
for the best built and working rig brought to Pacificon next year.
Proxies allowed, i.e. you can ship it to someone near there and
have them hand carry it. It has to be there to enter.

Rig here, of course, meaning a K8IQY ugly constructed XCVR. Someone
might be interested in sponsoring other catagories.....

Please don't put Jim on the spot and bug him. He should be able to sit
on the sidelines and relax after all the hard work he has already done.
The exercise here should be considered as one of trying to figure out
what he did and why. Call it reverse engineering if you want. He will
contribute when he sees the need. Hey, he's now retired and living the
life of leisure I think.

If you are interested in this project, then you need to think about your
workbench and test equipment and what you are gonna need for this. In
fact as we progress through this we'll just see how little one can get
by with for this project.

Jim used 4.915MHz crystals (5). Someone gave me about 500 4.0320MHz
for the project and that may not be enough and although not the same
IF freq that Jim used, should work with move of VFO to a higher freq.
This will make the VFO section interesting to see how the drift, etc.
does as we modify it, but you can find 4.915MHz crystals if you don't
want the hassle. So we are looking for more crystals for this project.
I'm in the process of matching them within 25Hz. We'll figure out a
distribution procedure later, so standby. No operators at the
switchboard at this time. ;-)

When the parts list comes out, people with large pockets and large
junk boxes may contribute, but the builder can learn a lot by learning
where to find things.....

OK, enough for now. Consider this a preamble. Short and sweet and
work in progress.

FYI es thanks for your time in reading this (I assume that you didn't
hit the delete key at this point)

Chuck Adams K5FO Dallas, TX CP-60
<http://reality.sgi.com/adams> adams@sgi.com

Date: Sat, 11 Jul 1998 02:26:19 +0000
From: bob evinger <revinger@marshallonline.com>
To: qrp-1@Lehigh.EDU
Subject: [14870] in the line of fire
Message-ID: <35A6CD49.8A147996@marshallonline.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Well I have thought about posting this now for 2 weeks and decided to go ahead.

This area has had a number of heavy duty electrical storms. One 2 weeks ago wreaked quite a bit of havoc on my station. It claimed one PC, my alarm system, my solar/wind charge controller, the ethernet card for mylaptop, 500 watt inverter and my OHR explorer II. The explorer II damage was "interesting", while all the other devices were pretty seriously damaged the only damage to the OHR was a shorted

reverse polarity protection diode. I think it may have actually protected the rest of the equipment that it was sharing a power bus with as the diode shorting blew the 15 amp fuse that quite a bit of the other stuff was on. I had all my antennas disconnected, so I believe that the pulse came in on my 12 volt lines from the PV and wind generator. I would have preferred that nothing had been damaged, but am glad that my "baby" radio survived it.

And yes I am seriously looking at trying to reduce the potential for another hit. Still need to replace the diode in the explorer though.

bob

--

Bob Evinger		19250 N. Livingston Road		revinger@marshallonline.com
WD9EKA		Marshall, IL 62441		

Date: Fri, 10 Jul 1998 22:57:43 -0400
From: "T.J. \"SKIP\" Arey N2EI" <tjarey@home.com>
To: ac5ex@webtv.net
Cc: "qrp-1@Lehigh.EDU" <qrp-1@Lehigh.EDU>
Subject: [14871] Popcorn Packing Material
Message-ID: <35A6D4A7.2011C894@home.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Larry is works great for breakables such as tubes. However I wouldn't want to use it for any electronic gear as some of it does break down and the tiny bits are a real pain to clean out of gear.

>Has anyone ever used pop corn as a packing material? Does it work well?
>This is a serious question, guys, really.

>Larry Ac5ez

>Qcwa

--

+++++

T.J. "SKIP" AREY N2EI e-mail tjarey@home.com

QRP-L #1618 QRPARCI #8634 ARRL Life Member

Author of: RADIO MONITORING The How-To Guide

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Specialization is for insects! LAZARUS LONG

Date: Fri, 10 Jul 1998 20:26:18 -0700 (PDT)
From: "Robert P. Okas" <vintage@best.com>
To: bob evinger <revinger@marshallonline.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [14872] Re: in the line of fire
Message-ID: <Pine.BSF.3.96.980710201131.23608A-100000@shell14.ba.best.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi Bob,

A long, long time ago, I had a job repairing TV sets during the summer. This was just about the time that remote-controlled TVs (at least the new RCAs I worked on) had triacs in the primary supply. When there was a close strike during a thunderstorm, the triac would short and the set would turn on by itself and wouldn't shut off! I fixed a few sets with that problem. Then there was the time I had a "set turned itself on" service call for a tubed set. It turned out to be one of those new-fangled 'instant-on' sets that kept the tube heaters on all the time. This was accomplished by paralleling a diode across the power switch, in opposition to the AC mains rectifier, shorted and you can guess the rest. Took me a while to find that rascal too!

ObQRP: Didn't make the Rupture Sunday, but did manage to carry some QRP rigs along with me when I went camping. Didn't make one lousy contact, but impressed the group I was with, especially the young-un's.

73,
Bob - W3CD

On Sat, 11 Jul 1998, bob evinger wrote:

> Well I have thought about posting this now for 2 weeks and decided to go ahead.
>
> This area has had a number of heavy duty electrical storms. One 2 weeks ago
>
> wreaked quite a bit of havoc on my station. It claimed one PC, my alarm system,
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> my solar/wind charge controller, the ethernet card for mylaptop, 500 watt
inverter
>
> and my OHR explorer II. The explorer II damage was "interesting", while all the
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> other devices were pretty seriously damaged the only damage to the OHR was a
shorted
>
> reverse polarity protection diode. I think it may have actually protected the
rest

>
> of the equipment that it was sharing a power bus with as the diode shorting blew
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> the 15 amp fuse that quite a bit of the other stuff was on. I had all
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> my antennas disconnected, so I believe that the pulse came in on my 12 volt
lines
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> from the PV and wind generator. I would have preferred that nothing had been
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> damaged, but am glad that my "baby" radio survived it.
>
> And yes I am seriously looking at trying to reduce the potential for another
>
> hit. Still need to replace the diode in the explorer though.
>
> bob
>
> --
> Bob Evinger | 19250 N. Livingston Road | revinger@marshallonline.com
> WD9EKA | Marshall, IL 62441 |
>
>
>
>
>

Date: Fri, 10 Jul 1998 22:58:00 -0500
From: W9SUL <pugrad@millcomm.com>
To: qrp-1@Lehigh.EDU, russ@natworld.com
Subject: [14873] Bumblebee # 28 operating location
Message-ID: <1.5.4.32.19980711035800.006a26d8@millcomm.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Bumblebee # 28, Dave - W9SUL, has made plans to check out the flora at "Wild Flower Park" in Blooming Prairie, Minnesota... where else would a bumblebee be... so many flowers, and so little time!!

Listen for my 'tell tale buzzing' on all 4 bands. Like last year, I am planning on printing a "limited edition" QSL card for all contacts made during my flight.

72 Dave - W9SUL Rochester, MN

Date: Sat, 11 Jul 1998 11:16:00 +0000
From: "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>,
jrybak@mesa7.mesa.colorado.edu
Subject: [14874] Re: Wilderness Radio's SST Xcvr???
Message-ID: <E0yuwaha-0006hx-00@hen.scotland.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

> Date: Fri, 10 Jul 1998 15:57:17 -0600 (MDT)
> Reply-to: jrybak@mesa7.mesa.colorado.edu
> From: James P Rybak <jrybak@mesa7.mesa.colorado.edu>
> To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
> Subject: Wilderness Radio's SST Xcvr???

>
> I'd like to hear some comments concerning Wilderness Radio's SST xcvr.
> I'm particularly interested in hearing what people think of the receiver.
>
> Thanks.
>
> Jim Rybak W0KSD
You may wish to view the mods for the SST rigs which are on my web
page: <http://www.homeusers.prestel.co.uk/sst1.htm>

I have the 20m one which worked well.

--73--

Frank G3YCC G QRP 042
email: g3ycc@g3ycc.prestel.co.uk
QRP web Site: <http://www.homeusers.prestel.co.uk/g3ycc/>
Packet: G3YCC@GB7HUL

Date: Sat, 11 Jul 1998 08:50:56 EDT
From: Bensondj@aol.com
To: adams@chuck.dallas.sgi.com, qrp-1@Lehigh.EDU
Subject: [14875] Re: FREQ-Mite crystal frequency
Message-ID: <a3e44ef0.35a75fb2@aol.com>
Mime-Version: 1.0

Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

>>From: adams@chuck.dallas.sgi.com (Chuck Adams)
>>To: qrp-1@Lehigh.EDU
>>Subject: [14796] NN1G FREQ-Mite Update

>>Am I the first to note that 4.096 was chosen due to
>>4096 being a number obtained from two raised to a
>>integer value?

It was chosen because none of the QRP rigs -to my knowledge- use that frequency as a IF. Frequencies like 3.579 or 4.00 (the SW-40 IF) would be tough to live with because of interference.

73, Dave- NN1G

Date: Sat, 11 Jul 1998 09:01:30 EDT
From: w4bws@juno.com (Donald E Sanders)
To: b2bn@hotmail.com
Cc: qrp-1@Lehigh.EDU
Subject: [14876] Re: Fish Story or Know
Message-ID: <19980711.080227.2127.0.W4BWS@juno.com>

Back in 1958 in Ohio the radio station I worked at had a pattern problem and it was discovered that a local farmer about 1/8th mile from the station was using a multiple turns loop of wire around his pasture to power his brooders in his chicken coops. The station paid the small electrical bill for the broodersto get him to cut the loop down.

Donald E. Sanders W4BWS
694 E. Eau Gallie Blvd. Satellite Beach, Fl 32937
407-779-0222 Fax 407-779-0830
E-mail to w4bws@juno.com
My favorite QRP rig glows in the dark

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com>
Or call Juno at (800) 654-JUNO [654-5866]

Date: Sat, 11 Jul 1998 09:36:53 EDT
From: Wa2eaw@aol.com

To: ac5ez@webtv.net, qrp-1@Lehigh.EDU
Subject: [14877] Re: Packing material
Message-ID: <797dfd3a.35a76a76@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

RE:pop corn as a packing material.

Yes;pop corn would make a very goor packing material BUT. there is always a but!!!!

(the name given to thoses little plastic thingies that fly all over the place and static electricity makes them cling to you when you open a package is also called "pop corn") But back to the but.

Real natural popcorn is an attaction for bugs and other critters.

Real natural popcorn will smoke and possible flame under high enough heat.

Real natural popcorn is friable(breaks into bits and pieces) and will get inside rig enclosures and smoke under heat conditions also will get between the leaves of variable caps.

Real natural popcorn is hydroscopic(attracts water) and can cause a short circuit.

The up side is that you can eat it if you run out of food.

Good thinking but has too many problems attendant to the concept.

72/73 Bob WA2EAW

Date: Sat, 11 Jul 1998 09:23:25 -0500
From: "edwin a. crowell" <w5twr@rconnect.com>
To: qrp-1@Lehigh.EDU
Subject: [14878] items for sale
Message-ID: <3.0.32.19980711092251.012ab16c@rconnect.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

gentlemen, from my post earlier, i still have for sale the following (all the rest have been claimed):

- 1) Timewave 59+ DSP audio unit. will reduce to \$160 as i see one on the list @ \$165. unit in perfect shape. very nice to experiment with dsp
- 2) MFJ-931 Artificial Ground--has gotten a lot of play in the list--\$50
- 3) MFJ-490 Memory Keyer with BENCHER iambic paddle attached--sends code practice for those of you wanting to upgrade--\$85.
- 4) MFJ-16010 "T" antenna tuner--has balun for tuned feeders handles up to 200

watts. very small, easy to back pack. 2X5X6 inches--\$25.

thanks for all the interest. please reply direct if interested in the above.

72, ed

ED CROWELL, W5TWR, WINONA, MN--Norcal #919, Qrp-l #1530, Qrp ARCI #9465
MFJ-9030, MFJ- 9020, NORCAL 40A, WILDERNESS SST-30, 49-er
MFJ-971 TUNER, ZM-2, TUNER, MFJ-16010-ST, TUCKER T-1000

Date: Sat, 11 Jul 1998 11:12:28 -0400
From: Steve <smann@advi.net>
To: qrp-l@Lehigh.EDU
Subject: [14879] Re: Packing material
Message-ID: <35A780DC.5C7F@advi.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Wa2eaw@aol.com wrote:

>
> RE:pop corn as a packing material.

> Real natural popcorn is an attaction for bugs and other critters.
> Real natural popcorn will smoke and possible flame under high enough heat.
> Real natural popcorn is friable(breaks into bits and pieces) and will get
> inside rig enclosures and smoke under heat conditions also will get between
> the leaves of variable caps.
> Real natural popcorn is hydroscopic(attracts water) and can cause a short
> circuit.
>

Put the radio, equipment, etc. into a plastic bag and seal it with duct tape. Then put it into the box and surround it with whatever popcorn you choose.

Steve, N4EY

Date: Sat, 11 Jul 1998 11:24:57 -0400
From: Michael Neverdosky <MichaelN@cycat.com>
To: qrp-l mailing list <qrp-l@Lehigh.EDU>
Subject: [14880] Re: Packing material

Message-ID: <35A783C9.46020AAB@cycat.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

When I worked at Hughes AC, and we had to ship something electronic, there was one way that really worked.

Seal the unit in plastic.
Get a box at least 4" bigger than the unit in all dimensions.
Pour some expanding foam in the bottom of the box.
Set the plastic sealed unit in the partially expanded foam.
Pour enough foam in to fill the sides and top.

Repeat this whole procedure with another bigger box.
Tape every joint and edge of the outside.

Equipment packed this way often arrived overseas looking more like a ball than a box, but the equipment always was undamaged.

michael N6HCV

smann@advi.net wrote:
>
> Wa2eaw@aol.com wrote:
> >
> > RE:pop corn as a packing material.
>
>
> Put the radio, equipment, etc. into a plastic bag and seal it with duct
> tape. Then put it into the box and surround it with whatever popcorn
> you choose.
>
> Steve, N4EY

Date: Sun, 12 Jul 1998 09:08:41 -0700
From: Jeff Grudin <grudin@pacific.vdbs.com>
To: QRP-L <qrp-l@Lehigh.EDU>
Subject: [14881] What contest is on now?
Message-ID: <35A8DF89.4B1F@vdbs.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Could someone tell me what contest is on now? My HW8 is blasting and I am at work. I would like to work some guys in between things but don't have any mags to look up what is going on. Thanks.

--

73 de Jeff AC6KW

grudin@vdbbs.com

Ocean Animal Clinic / Cat Clinic of Santa Cruz - Santa Cruz, California

Norcal QRP #1292 QRP-L #16 ARS #351 AR Qrp #131 Bumble Bee #19

Date: Sat, 11 Jul 1998 11:23:13 -0500 (CDT)
From: jdenison@morelr.com (JOEL DENISON)
To: qrp-l@Lehigh.EDU
Subject: [14882] RE Fish story or KNEAUX (cajun spelling)
Message-ID: <199807111623.LAA28191@ns1.morelr.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I've heard of people getting power with wires parallel to power lines and I guess it's easy enough if u have enough wire out...

I remember one time I had an eighty meter ant up about 70ft on a neighbors tv ant tower and I used to watch the PL259 connector on the end of my coax arc whenever the wind blew hard or lightning was close by.

Seems I used two or three eight foot gnd rods to gnd the rig with all that sparking going on... think it was a dx60 xmtr and a pmr7 ??? receiver...

kinda reminds me of the time I hung an antenna from some channel marker bouys... worked great till someone hung some fishing lines from the antenna... :-)

bye now

joel, in maine, love fish stories

God Bless

Joel

WA5CVM

Joel Denison

PO BOX 542

Strong, Maine 04983

jdenison@morelr.com

Gentle Lady (RC Sail Plane)(049 engine - start)

DIPOLE on 40mtr

QRP ARCI 4066 NEW ENGLAND QRP 476 QRP-L 765

Date: Sat, 11 Jul 1998 12:38:48 +0000
From: jim <kw3u@warwick.net>
To: ac5ez@webtv.net
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [14883] Re: Packing material
Message-ID: <35A75CD8.2E3B@warwick.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Larry B wrote:

>
> Has anyone ever used pop corn as a packing material? Does it work well?
> This is a serious question, guys, really.
>
> Larry Ac5ez
> Qcwalarry, don't do it! It is illegal to ship popcorn across certain
state lines, and in Pennsylvania there are additional penalties
if buttered and salted. Jim

Date: Sat, 11 Jul 1998 13:32:24 EDT
From: Ab7wy@aol.com
To: qrp-l@Lehigh.EDU
Subject: [14884] Re: What contest is on now?
Message-ID: <4834c766.35a7a1aa@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

right now its the IARU hf championship CW/SSB, its a 24 hr. contest, and a
great way to pick up new countries on qrp....it seems like the big guns ears
are a little better when we're worth some points. :-)

72, Adam, AB7WY

Date: Sat, 11 Jul 1998 13:32:41 -0400
From: "Ron Polityka" <wb3aal@talon.net>
To: "QRP-L" <qrp-l@Lehigh.EDU>
Subject: [14885] Bumblebee # 84 Operating Location
Message-ID: <00bd01bdacf1\$ead40060\$255445c6@default>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I will be running as Bumblebee #84, Ron Polityka WB3AAL,
from the Appalachian Trail near Hamburg, PA.
Hope to do a dry run next week.

73, Good DXing & QRPing
Ron de WB3AAL

E-mail: wb3aal@talon.net
http://www.kpsnet.com/wb3aal/Start_Page.htm
BBS: WB3AAL @ WB3FYL.#BER.PA.USA.NA

EPA QRP # 1 QRP # 5318 10-10 # 13173
QRP-L # 1099 G-QRP # 3031 AK QRP # 309
Adventure Radio Society #380
Bumblebee #84

Date: Sat, 11 Jul 1998 13:58:42 -0400
From: "GREGORY HEATH" <KB2QQM@email.msn.com>
To: "QRP-L (SENDING ? TO QRP-L)" <qrp-l@Lehigh.EDU>
Subject: [14886] 38 Special pwr Mod???help
Message-ID: <09ad94702180b78UPIMSSMTPUSR03@email.msn.com>

Hi, I am building a 38-special, one that I had just sitting in the closet for a winter project. Well my winters are busier than my summers now. I am following the "38 special consolidated construction Manual, by Marty KM7W." I am not really sure how to mount the 5 watt transistor to the case. I plan on building the rig into the machined case that is offered by KE6RIE. It says it must be insulated from ground. I wanted to use the IRF 510 , but they were out so they furnished me with a generic version by another manufacturer. SK Series SK3854 123AP Npn Si transistor. I have the insulator kit that came with it. It consists of the see-thru mica insulator, a black washer thingy, a tiny clear washer and a rectangular piece of aluminum with a hole in the center for the nylon machine screw. How do you affix this thing together. I have not done this before...Is there anyone out here that can give me explicit instructions. Oh yes I do have thermal grease.

2nd stupid question.....The value of R-20 calls for a 270 K ohm resistor. Of all the resistors that came with the kit, (with the correct color bands, RED,VIOLET,YELLOW), and with extra ones I bought at Radio Shack....the highest value I am able to obtain is about 233K ohm. Am I just having bad luck or is everybody else's the same also.??
R-20 is located just above "U5" but below "TC2". Any help would be appreciated.

you thought this was a short post didnt you? Ok last question. How many of you had to take off turns from T1 secondary so that you got 2 peaks on "TC1"???. The manual says 19 turns, I wound 17 as per the consolidated construction manual. just wondering.

I want to avoid all the problems I had with my first 38 special basket case, which holds an unfinished place in my closet. thanks for your input...Greg.

Date: Sat, 11 Jul 1998 13:40:40 -0500 (CDT)
From: ac5ez@webtv.net (Larry B)
To: qrp-l@Lehigh.EDU
Subject: [14887] Packing Material
Message-ID: <12425-35A7B1A8-486@mailtod-121.bryant.webtv.net>
Content-Type: Text/Plain; Charset=US-ASCII
Content-Transfer-Encoding: 7Bit
MIME-Version: 1.0 (WebTV)

Ok guys. I have changed my mind again. No popcorn. Its back to bubble wrap and styrifoam.
Wish I wasent so wishe-washie
Larry

Date: Sun, 12 Jul 1998 11:42:23 -0700
From: Jeff Grudin <grudin@pacific.vdbs.com>
To: QRP-L <qrp-l@Lehigh.EDU>
Subject: [14888] Contest Info - Thanks
Message-ID: <35A9038F.7CDB@vdbs.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Thanks to all who responded.

Info for those that are interested:

IARU contest. Exchange is RST + ITU Zone (Believe CA is ITU zone 6).
Work as many stations around the world, including US, on the regular HF bands. Contest ends 1200z tomorrow morning.

--

73 de Jeff AC6KW

grudin@vdbbs.com

Ocean Animal Clinic / Cat Clinic of Santa Cruz - Santa Cruz, California

Norcal QRP #1292 QRP-L #16 ARS #351 AR Qrp #131 Bumble Bee #19

Date: Sat, 11 Jul 1998 11:14:10 -0800
From: "Jim Larsen (AL7FS)" <larsennc@alaska.net>
To: qrp-l@Lehigh.EDU
Subject: [14889] NC 38S Custom Enclosure Question
Message-ID: <35A7B982.7AD63F9B@alaska.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Would someone please tell me the original cost and shipping costs for the NorCal 38S Custom enclosure? I found the cost for the rig...\$25+\$3. I have 570 messages on the 38S and cannot find the cost of the enclosure. (Web page is not operational on NorCal, although I thought Doug had his own page somewhere)

Thanks,

73, Jim, AL7FS

Date: Sat, 11 Jul 1998 15:35:48 -0400
From: "Bob Kellogg" <ae4ic@nr.infi.net>
To: "qrpforum" <qrp-l@Lehigh.EDU>
Subject: [14890] Spartan Sprint - Kits - KnightSMiTes
Message-ID: <199807111938.PAA26510@mailhost.infi.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Gang,

This past week was vacation at the Beach. Monday night, of course, was Spartan Sprint time. I rarely get to work the sprint, because I have another commitment on Monday nights, so this time I was going to hit it!

Put up my trusty 20M vertical, and wouldn't you know, SWR is 8:1. Take it down, clean all of the joints, put it up, retune the length (several times). SWR still 4:1. Usually it's about 1.1:1 so no tuner is required. Oh, well, use the tuner. I can't believe it, my trusty Z-Match just won't tune it. It does something good to the signal, but just not the old 1:1 that I'm used to. I was probably trying to tune the coax with a broken center lead.

Forgot to bring the rules, so don't know when the sprint starts and ends. But, it's late enough by now that I hear guys calling "CQ SP", so let's go for it. Worked Md, Mi, Mn, La, Ok, Co, Ut, and Or in less than an hour. Great fun! Wonder what I could have done with an antenna?

Next, day I started assembling the Steve Weber's SA/SA Mark II Spectrum Analyzer scope adapter kit. It went together well, and I can't wait to put it to use on the bench. (Need to wire the controls and put it in a case first)

That done, I tackled Dave Benson's GM-10 kit. Dave has a different approach to design than some of the others, and I found it quite interesting. He seems much less interested in parts count than performance. (Not that there were extraneous parts, just that the signal path appeared to be controlled very nicely) Stuffed the board, and studied the circuit, so now all I need to do is build a case for that one, too!

I'm having fun! -- but next year I'm going to take a couple more kits!

Oh, yes, KnightSMiTes. Since I wasn't home last week, none got shipped. :-)

I'll make a new batch this week, and should catch up orders within a week or so. Thanks for your patience.

CUL,
Bob Kellogg, AE4IC, Greensboro, NC
Prolably, but not nececelery. -- Benny Hill

Date: Sat, 11 Jul 1998 15:41:09 -0400
From: Michael Maiorana <mikemo@ibm.net>
To: qrp1 <qrp-1@Lehigh.EDU>
Subject: [14891] Elmer 101: Part 10, first audio amp
Message-ID: <35A7BFD5.5039ED2F@ibm.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

We are on a roll, so lets keep it up.

Up to now we have a functioning receiver. We have audio coming out of U3, but it needs filtering and lots of amplification. Let's build the first section.

Gather the following components:

U4 NE5532 and socket

C19 .033 Microfarad

C20 .1 Microfarad

C21 .01 Microfarad

C22 150 pF

C23 150 pF

R2 10k

R3 10k

R4 510k

R7 510k

D3 1n4148

D4 1n4148

Install the components and check your work.

Turn on the rig and look at pin one of U4 with a scope when you key up. Hey, what's wrong here? I had much more signal at the output of U3 than I have here. What gives? Well, U4 is an amplifier, but it also has some limiting diodes in the feedback circuit, D3 and D4. These limit the output swing of the amplifier as to not saturate Q1, the mute FET (not installed).

Remember that up till now we are cheating with the receiver. We are using the transmit signal as a signal source to test our receiver. In the real world we would never have such a large signal on our antenna.

This section provides 30db gain and is differentially driven (like T2 at the output of U5) to take advantage of the greater signal voltage. It also acts as a low pass filter, rolling off frequencies that are over 1500 Hz.

R4 DC biases pin 3 of U4. C23 and C22 lower the gain of the stage as the frequency rises.

Lets get a DC and AC analysis of this stage.

Here are my questions:

1) How can we calculate the DC voltages of this stage. Opamps should be easy, right ;-)

2) How do we calculate the gain of this stage. The manual says 30db.
What is the voltage gain?

3) Why is C21 smaller than C20?

4) What is the purpose of C19? Is this a terminator of some kind?

--

72 de ku4qo

Mike Maiorana

Palm Harbor, FL

"And if I have prophetic powers, and understand all mysteries
and all knowledge, and if I have all faith, so as to remove
mountains, but have not love, I am nothing"

Date: Sat, 11 Jul 1998 15:12:37 -0400
From: Michael Maiorana <mikemo@ibm.net>
To: qrp1 <qrp-1@Lehigh.EDU>
Subject: [14892] Elmer 101: Part 9, Product detector
Message-ID: <35A7B925.2CE98FCE@ibm.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Here is part 9 for your building enjoyment ;-)

Just an update, I only got a handful of responses regarding the pace of
the class. I'll assume that there are more than 5 students left, and
those who did not respond were ok with the pace.

I'm going to give the project a little "boost" this weekend to attempt
to get done before the summer is over.

The section we are going to build next is the product detector. Remember
where we last left off, we had mixed the receive signal with the VFO
down to the IF frequency. From there it is "magically" filtered by the
IF crystal filter. Now we want to take that signal and turn it into
something we can hear with our ears. This is the job of the product
detector. It mixes the filtered IF with it's own oscillator that is
running at the IF frequency. In this case, if the VFO frequency is 3Mhz,
the transmit frequency is 6.9992Mhz (VFO + xmit mixer freq 3.9992Mhz).
Remember that the crystal frequency in the oscillator of U5 is pulled
800 Hz lower by the addition of RFC2. This provides the proper xmit

signal offset of 800Hz on the upper sideband. Remember that we are using a small part of the transmit signal as our receiver source, so the receive signal frequency is 6.9992Mhz. Once it is mixed with the VFO we get $VFO - receive = 3.9992Mhz$ (look familiar?). This is within the 500 hz bandwidth of the IF filter so this 3.9992 Mhz signal is presented to the product detector. The product detector mixes this signal with its own internal oscillator running at the IF frequency of 4Mhz. The resulting signals are 7.9992Mhz and 800Hz. The 800Hz signal is in the audible range for our ears to hear.

So far in the receiver we have been able to tune a signal with our VFO that was 6.9992 Mhz and turn it into an 800Hz tone on the receive end.

Gather the following components.

- U3 NE612 mixer chip
- C16 68pf
- C17 47pf
- C18 47pf
- Y4 4mhz xtal (the case of this one is not grounded)

Install on the board and check your work.

Those of you with a scope can look at the output of U3 on pin 4 or 5. You should see an interesting mix of high frequencies (7.9992Mhz) and a low audio frequency (800 Hz).

For those without a scope, or if you just want to "hear" your receiver work, try this. Power off the rig. Get one of the 47 Microfarad caps left that has not yet been installed. Don't cut the leads! Tack solder the + lead to the C19 pad that is closest to U3. Now using clip leads connect one side of a speaker to the - lead of the capacitor and the other side of the speaker to ground. Make sure the room is really quiet. Power up the rig and hit the key. You should hear a very faint 800Hz tone coming out of the speaker. That is your superhet receiver at work! Cool, Huh?

Once you hear the tone, shut down the rig and remove the capacitor and put it back in the parts bag (you need it later).

There is not much to describe in this portion of the circuit. Just a standard implementation of an NE612 mixer.

Stay tuned for the next section, the first audio amp.

--

72 de ku4qo
Mike Maiorana
Palm Harbor, FL

"And if I have prophetic powers, and understand all mysteries and all knowledge, and if I have all faith, so as to remove mountains, but have not love, I am nothing"

Date: Sat, 11 Jul 1998 16:06:59 -0400
From: Michael Maiorana <mikemo@ibm.net>
To: qrp1 <qrp-1@Lehigh.EDU>
Subject: [14893] Elmer101: Part 11, VFO adjustment
Message-ID: <35A7C5E3.195D007E@ibm.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Since we are close to getting our receiver finished, let's quickly adjust our VFO for operation in the amateur bands.

First, remove the temporary jumper that we installed before from Q6 to C36. This will remove our "cheat" and stop feeding xmit signal directly into the receiver.

You can use a frequency counter for this or a calibrated receiver. Using a freq counter, connect the probe to the top of R29 or the cathode of D6. Turn on and key the rig, note the frequency. It should be around 7 Mhz. With a receiver, connect a clip lead to the top of R29 or the cathode of D6 as a small antenna. turn on the rig and your receiver. Start at 7Mhz on your main rig and key the SW-40+. Tune the main rig up until you hear the transmitted tone. It helps to key it on and off so the carrier will be distinctive. Zero beat the receiver (tune it down until the receive tone gets so low you can't hear it, 0 Hz). The receiver is reading your transmit frequency.

Now, go to the manual page 16. Look up your frequency on the chart and find what capacitor that you will need for C7. Make sure you use the correct chart for Novice operation. Mine required a 68pF capacitor for C7. Install C7.

Now remove the temporary jumper at J2.
Install the off board tuning pot (not included with kit) as per page 15 of the instructions.

Now you can tune your xceiver. I built mine for general+ segment. My frequency coverage is from 7.015 Mhz to 7.050 Mhz, perfect for me. Without C7 mine tunes from 7.111 to 7.149. Maybe I can install a switch

on C7 to switch between General and Novice operation.

I don't remember if we covered this in the VFO section, but you can change the range of tuning by changing C8. Increasing C8 widens the tuning range and decreasing it decreases the tuning range. Does anyone want to take a shot at why it works this way? (post to the list please).

What limits the tuning range of this design?

The manual states that the practical upper limit of C8 is 1000pf, and at the larger values capacitor and varicap thermal stability become crucial. Why?

Use NPO/C0G caps if you replace C8. Why?

Now that our VFO is set we are ready to finish the receiver and listen for some stations!

--

72 de ku4qo
Mike Maiorana
Palm Harbor, FL

"And if I have prophetic powers, and understand all mysteries and all knowledge, and if I have all faith, so as to remove mountains, but have not love, I am nothing"

Date: Sat, 11 Jul 1998 17:26:39 -0400
From: "Hugo W. Catta" <hugo@banet.net>
To: KB2QQM@email.msn.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [14894] Re: 38 Special pwr Mod???help
Message-ID: <35A7D88E.DEDD53C8@banet.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi, Greg!

GREGORY HEATH wrote:

> Hi, I am building a 38-special, one that I had just sitting in the closet
> for a winter project. Well my winters are busier than my summers now. I am
> following the "38 special consolidated construction Manual, by Marty KM7W."
> I am not really sure how to mount the 5 watt transistor to the case. I plan

> on building the rig into the machined case that is offered by KE6RIE. It
> says it must be insulated from ground. I wanted to use the IRF 510 , but
> they were out so they furnished me with a generic version by another
> manufacturer. SK Series SK3854 123AP Npn Si transistor.

The SK3854 (RCA) / NTE123AP (ECG) is a different animal, Greg. It is a low sig.
T092 case. There is no direct replacement from ECG for the IRF510, as far as I
know.

Try another Rat Shack store. The IRF510s are very common.

> I have the insulator kit that came with it. It consists of the see-thru
> mica insulator, a black washer thingy, a tiny clear washer and a rectangular
> piece of aluminum with a hole in the center for the nylon machine screw.
> How do you affix this thing together. I have not done this before...Is there
> anyone out here that can give me explicit instructions. Oh yes I do have
> thermal grease.

The IRF510 case is a T0220 type. It has a tab with a hole in it. Place the mica
between the back of the IRF510 and the case, or heat sink and pass a screw
through the plastic washer provided; the idea is to avoid contact between the
tab and the heat sink. In my 38 Special I used the back of the case as a heat
sink and it gets just warm even in long key down periods. The grease goes on
both sides of the mica. Do not over "butter" it

> 2nd stupid question.....The value of R-20 calls for a 270 K ohm
> resistor. Of all the resistors that came with the kit, (with the correct
> color bands, RED,VIOLET,YELLOW), and with extra ones I bought at Radio
> Shack....the highest value I am able to obtain is about 233K ohm. Am I just
> having bad luck or is everybody else's the same also.??

I'd suspect of your Ohmmeter first.....

> R-20 is located just above "U5" but below "TC2". Any help would be
> appreciated.
> you thought this was a short post didnt you? Ok last question. How
> many of you had to take off turns from T1 secondary so that you got 2 peaks
> on "TC1"?? The manual says 19 turns, I wound 17 as per the consolidated
> construction manual. just wondering.

The T1 "mod" calls for 18 turns and C4 changed to 10pf. you get more "out of
band" signal rejection, (more selectivity). I did it. It works.

> I want to avoid all the problems I had with my first 38 special basket
> case, which holds an unfinished place in my closet. thanks for your
> input...Greg.

Other valuable mods can be found in the fall 1997 QRPP under the title:
The 38 Special the Arizona Way, by AB7MY with input from K1MG

Don't get crazy about the RIT mod. It works but not very well. I "undid it".

I'm in the process of adding a second crystal for more selectivity. I'll keep U posted.

72,
Hugo
CX9AAK/W2

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